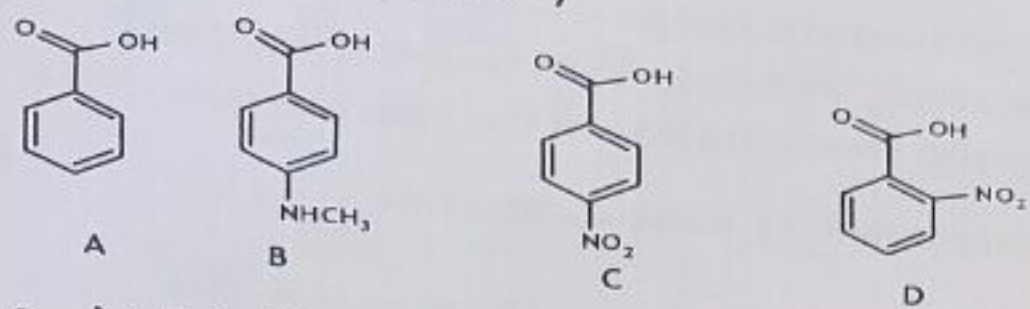


1. Rank the following compounds in order of increasing metabolism ?(less metabolism to most)



a. $A > B > C > D$

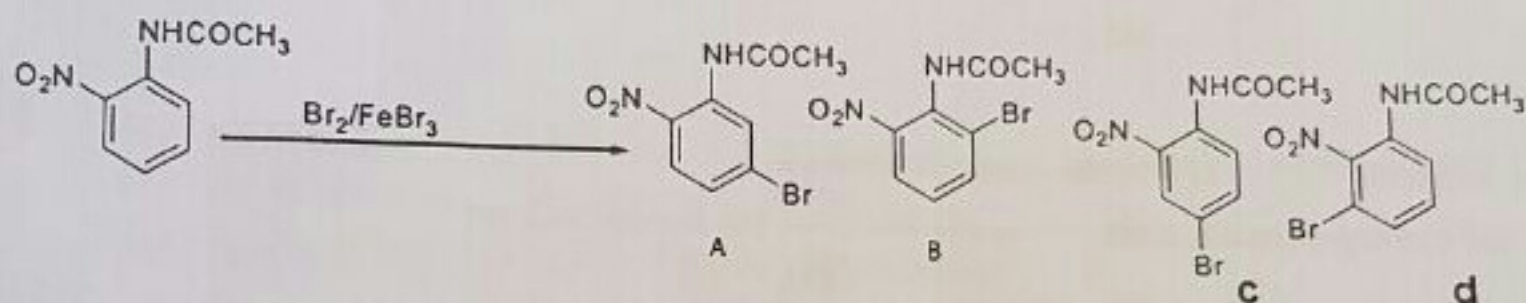
b. $C > B > A > D$

c. $C > D > A > B$

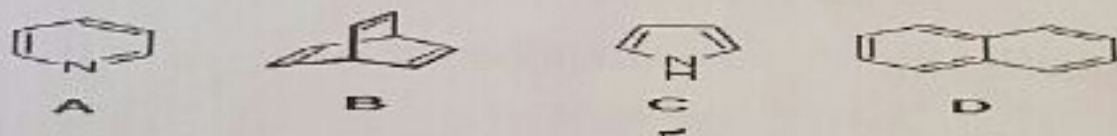
d. $B > D > A > C$

2.

Which is the most likely major product in the following reaction:

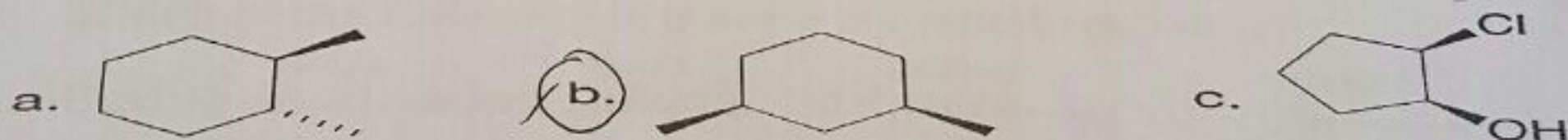


3. Which of the following compounds would be not be considered aromatic in its behavior?



4.

Which of the following cyclic molecules are *meso* compounds?



5. Stereoisomers with two asymmetric carbons are called -----if the configuration of both asymmetric carbons in one isomer is the opposite of the configuration of the asymmetric carbons in the other isomer.

a. Diastereomers ☒ b. enantiomers

c. meso compounds d. none of the above

6. Stereoisomers with two asymmetric carbons are called -----if the configuration of both asymmetric carbons in one isomer is the same as the configuration of the asymmetric carbons in the other isomer.



a. Diastereomers

b. enantiomers

☒ c. meso compound

d. a and b

7. Stereoisomers with two asymmetric carbons are called ----- if one of the asymmetric carbons has the same configuration in both isomers and the other asymmetric carbon has the opposite configuration in the two isomers.

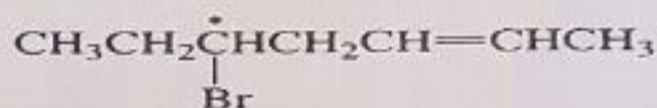
☒ a. Diastereomers

b. enantiomer

c. enantiomers

d. meso compounds

8. The following compound has



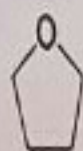
a. 2 isomer

b. 3 isomer

☒ c. 4 isomer

d. None isomer

9. Each pair of compounds are ----- to each other



and

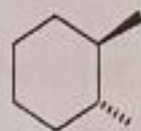


☒ a. Structural isomer

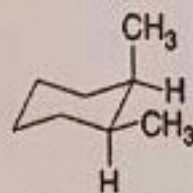
b. stereoisomer

c. not isomer

10. Each pair of compounds are ----- to each other



and



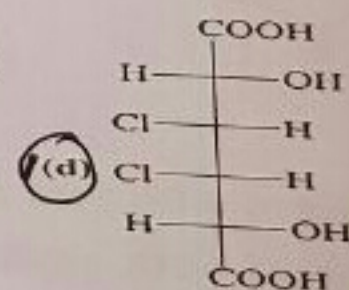
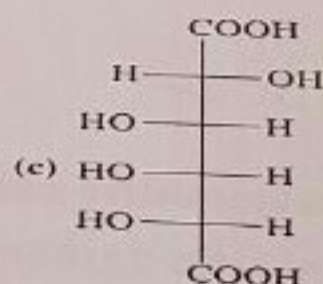
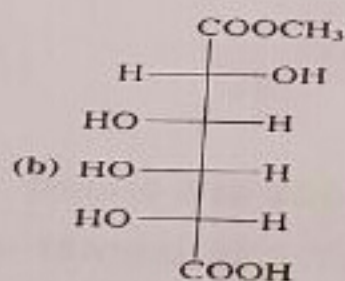
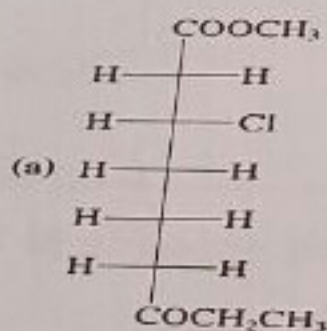
a. Structural isomer

☒ b. stereoisomer

c. not isomer

11.

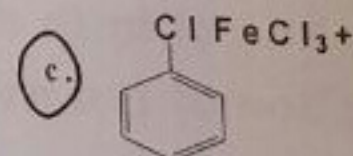
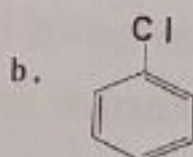
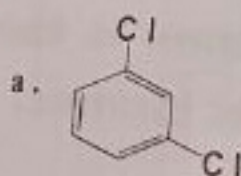
Which compound will *not* exhibit optical activity?



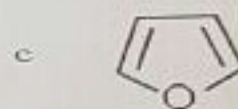
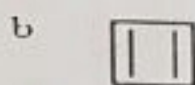
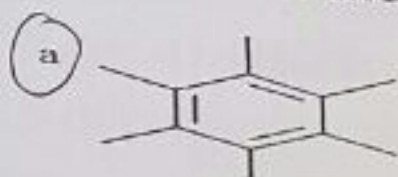
12.



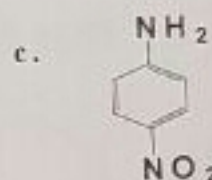
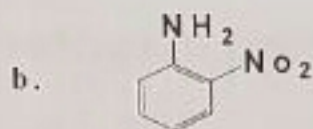
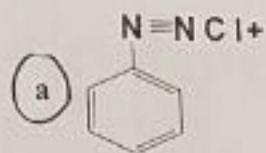
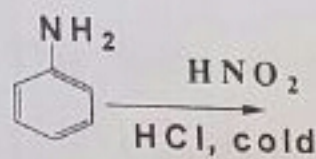
$\xrightarrow{\text{Cl}_2 / \text{FeCl}_3}$



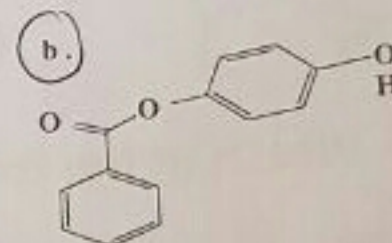
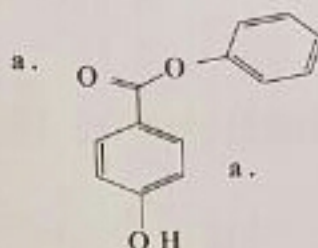
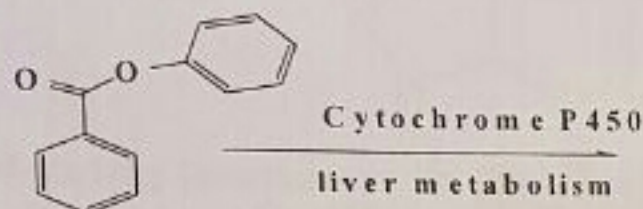
13. Determine, which of the following aromatic?



14.



15.



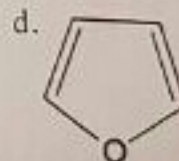
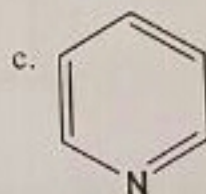
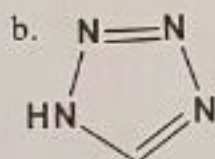
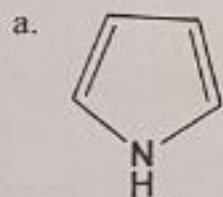
16. Which of the following is not a five membered ring?

- a) Pyridine b. Pyrrole c. Furan (d) Thiophene

17. Pyrrole is less basic than pyridine

- a. True b. false

18. Which compound is most basic?



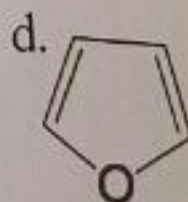
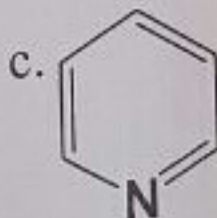
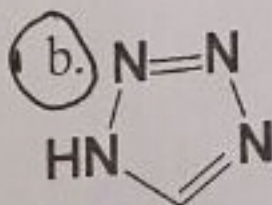
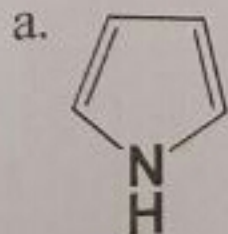
19. Which of the following is not a six membered ring?

- a. Pyridine b. Pyrimidine (c) Furan d. Pyrazine

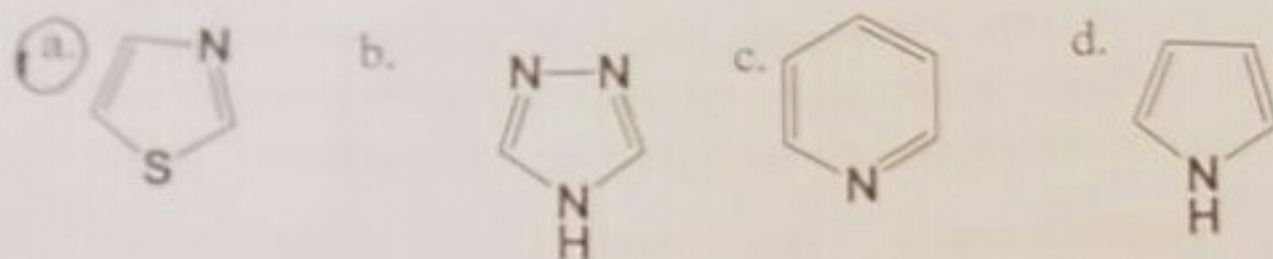
20. Which of the following is a six membered ring?

- a. Pyrimidine b. Pyridine c. Pyrazine (d) All of the above

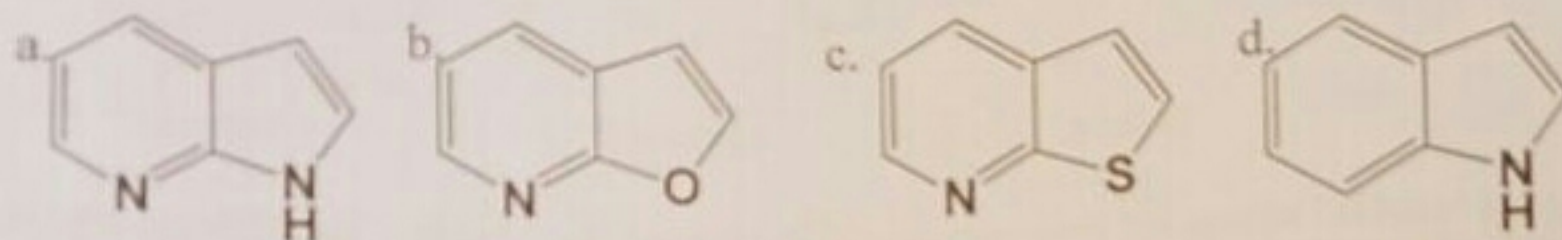
21. Which of the following is tetrazol?



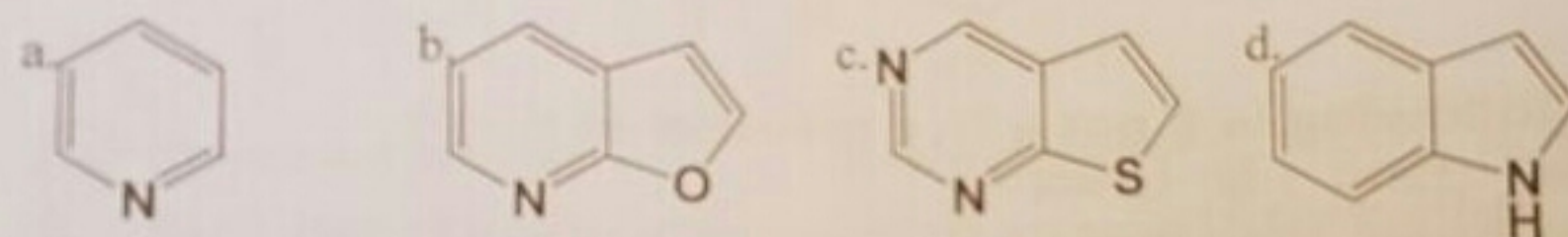
22. Which of the following rings is thiazol?



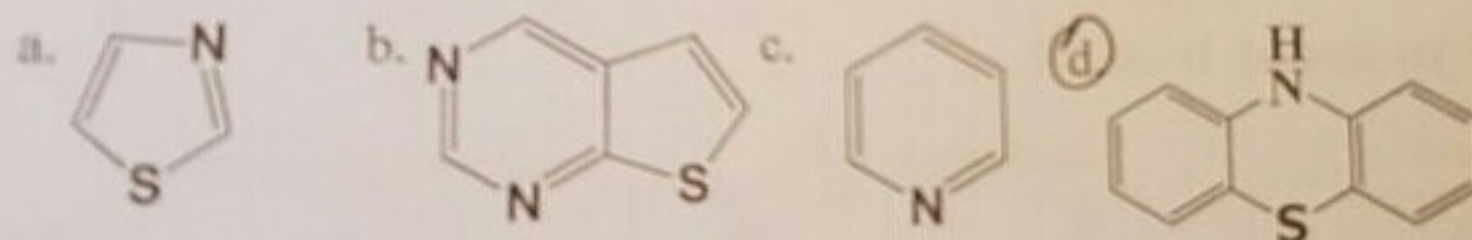
23. Which of the following structures is Pyrrolo[2,3-b]pyridine?



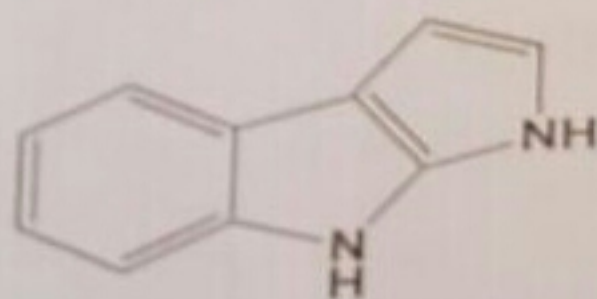
24. Which of the following structures is Thieno[2,3-d]pyrimidine?



25. Which of the following structures is phenothiazine?

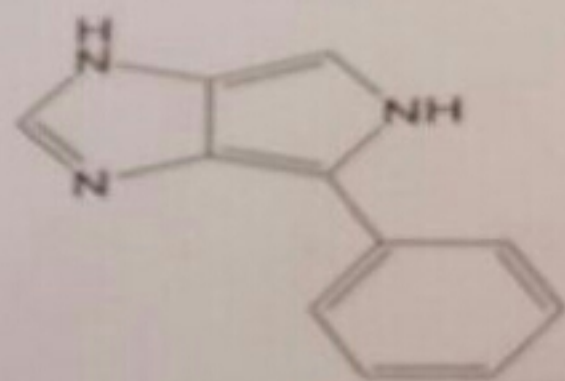


26. The following structure has the name



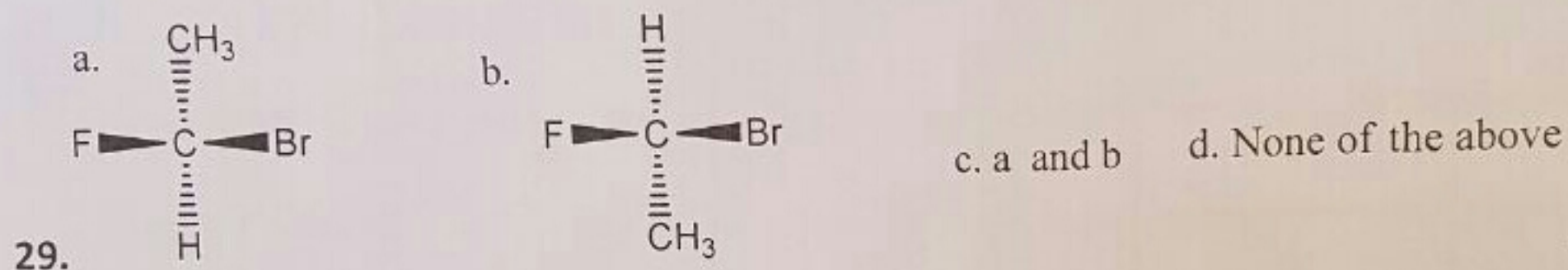
- a. Pyrrolo[3,2-b]indol b. Pyrrolo-indol c. pyrrolo[2,3-b]indol

27. The following structure has the name

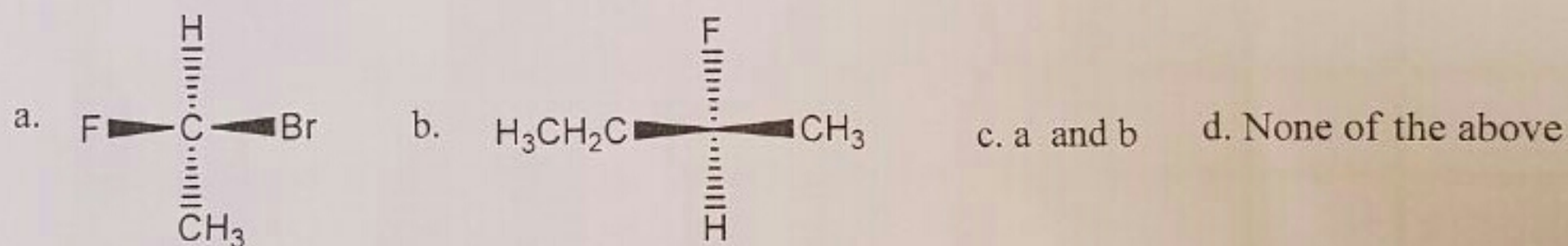


- a. 6-Phenyl-1,5-dihydro-pyrrolo[3,4-d]imidazole
- b. 4-Phenyl-1,5-dihydro-imidazo[3,4-d]pyrrol.
- c. 4-Phenyl-1,5-dihydro-pyrrolo[3,4-d]imidazole

28. The following isomer is or are **S** conformer



following isomer is or are **S** conformer



30. The following isomer is or are **S** conformer

